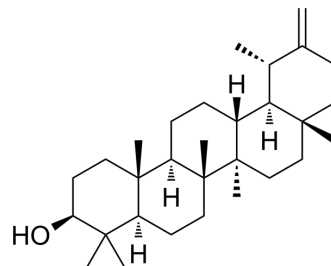


## Taraxasterol

<b>Cat. No.:</b>	HY-N1178
<b>CAS No.:</b>	1059-14-9
<b>Molecular Formula:</b>	C <sub>30</sub> H <sub>50</sub> O
<b>Molecular Weight:</b>	426.72
<b>Target:</b>	Others; Interleukin Related; LXR
<b>Pathway:</b>	Others; Immunology/Inflammation; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
<b>Storage:</b>	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	Ethanol : 4 mg/mL (9.37 mM; Need ultrasonic)																					
	DMSO : 1 mg/mL (2.34 mM; ultrasonic and heat to 80°C)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>2.3435 mL</td> <td>11.7173 mL</td> <td>23.4346 mL</td> </tr> <tr> <td>5 mM</td> <td>0.4687 mL</td> <td>2.3435 mL</td> <td>4.6869 mL</td> </tr> <tr> <td>10 mM</td> <td>---</td> <td>---</td> <td>---</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	2.3435 mL	11.7173 mL	23.4346 mL	5 mM	0.4687 mL	2.3435 mL	4.6869 mL	10 mM	---	---	---
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Please refer to the solubility information to select the appropriate solvent.																						
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% EtOH &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 0.55 mg/mL (1.29 mM); Clear solution</li> <li>Add each solvent one by one: 10% EtOH &gt;&gt; 90% corn oil Solubility: ≥ 0.55 mg/mL (1.29 mM); Clear solution</li> </ol>																					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Taraxasterol is a pentacyclic triterpenoid compound isolated from <i>Taraxacum mongolicum</i> . Taraxasterol is an LXR $\alpha$ activator, with metabolic and anti-inflammatory effects. Taraxasterol may be used in research on immune-inflammatory diseases <sup>[1][2][3]</sup> .
<b>In Vitro</b>	<p>Taraxasterol (5-18 <math>\mu</math>g/ml, 1 h) inhibits vascular inflammation through activating LXR<math>\alpha</math> in the human umbilical vein endothelial cells<sup>[3]</sup>.</p> <p>Taraxasterol (5-18 <math>\mu</math>g/ml, 1 h) at concentrations below 15 <math>\mu</math>g/ml does not show cytotoxicity to human umbilical vein endothelial cells<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[3]</sup></p>

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<b>In Vivo</b>	<p>Taraxasterol (2.5, 5, and 10 mg/kg, i.p., 8 h) has a protective effect against acute lung injury in a lipopolysaccharide-induced acute lung injury mouse model<sup>[4]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Lipopolysaccharide (HY-D1056)-induced acute lung injury mouse model</td> </tr> <tr> <td>Dosage:</td> <td>2.5, 5, and 10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection (i.p.), 8 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited the phosphorylation of IκB-α, p65 NF-κB, p46-p54 JNK, p42-p44 ERK, and p38 caused by Lipopolysaccharide (HY-D1056).</td> </tr> </table>	Animal Model:	Lipopolysaccharide (HY-D1056)-induced acute lung injury mouse model	Dosage:	2.5, 5, and 10 mg/kg	Administration:	Intraperitoneal injection (i.p.), 8 h	Result:	Inhibited the phosphorylation of IκB-α, p65 NF-κB, p46-p54 JNK, p42-p44 ERK, and p38 caused by Lipopolysaccharide (HY-D1056).
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## REFERENCES

- [1]. Zheng F, et al. Anti-inflammatory effects of taraxasterol on LPS-stimulated human umbilical vein endothelial cells[J]. *Inflammation*, 2018, 41: 1755-1761.
- [2]. San Z, et al. Protective effect of taraxasterol on acute lung injury induced by lipopolysaccharide in mice[J]. *International Immunopharmacology*, 2014, 19(2): 342-350.
- [3]. Zhang X, et al. Effects of taraxasterol on inflammatory responses in lipopolysaccharide-induced RAW 264.7 macrophages. *J Ethnopharmacol*. 2012 May 7;141(1):206-11.
- [4]. Sang R, Yu Y, Ge B, Xu L, Wang Z, Zhang X. Taraxasterol from *Taraxacum* prevents concanavalin A-induced acute hepatic injury in mice via modulating TLRs/NF-κB and Bax/Bc1-2 signalling pathways. *Artif Cells Nanomed Biotechnol*. 2019;47(1):3929-3937.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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